

DIRECT TESTIMONY AND EXHIBITS OF
DR. KYLE D. MAURER SR., P.E.
ON BEHALF OF
THE SOUTH CAROLINA OFFICE OF REGULATORY STAFF
DOCKET NO. 2019-290-WS
IN RE: APPLICATION OF BLUE GRANITE WATER COMPANY FOR
APPROVAL TO ADJUST RATE SCHEDULES AND INCREASE RATES

Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS AND OCCUPATION.

A. My name is Kyle D. Maurer Sr. My business address is 1401 Main Street, Suite 900, Columbia, South Carolina 29201. I am employed by the South Carolina Office of Regulatory Staff (“ORS”) in the Water Operations Department as Deputy Director.

Q. PLEASE STATE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.

A. I received a Bachelor of Science Degree in Civil Engineering from Ohio Northern University in 2009, a Master of Science Degree in Civil and Environmental Engineering from Ohio State University in 2011, and a Doctor of Philosophy Degree in Civil and Environmental Engineering from Ohio State University in 2013. I am a licensed Professional Engineer registered in the State of South Carolina.

In August 2013, I joined Hybrid Engineering, Inc. in Columbia, South Carolina as a Design Engineer. At Hybrid Engineering, Inc., I gained experience in many aspects of water and wastewater infrastructure projects. Specifically, I assisted with the design of a wastewater treatment plant expansion, including onsite construction observation of that and other projects; served as project manager for multiple water and wastewater projects; prepared South Carolina Department of Health and Environmental Control (“DHEC”)

1 permit applications; and facilitated bid openings, awarded construction contracts, and
2 managed pre-construction conferences.

3 In October 2014, I started employment at DHEC as an Associate Engineer with
4 duties as both a Wastewater Permitting Engineer and Water Quality Standards Coordinator.
5 I also spent time at DHEC as a Drinking Water Compliance Engineer, Manager of the
6 Office of Rural Water, and Manager of the Domestic Wastewater Permitting Section.
7 Throughout my time at DHEC, I was involved in permitting, compliance, technical
8 assistance, and rulemaking within the water and wastewater program areas. In November
9 2019, I joined ORS as Deputy Director of the Water Operations Department.

10 **Q. HAVE YOU TESTIFIED BEFORE THE PUBLIC SERVICE COMMISSION OF**
11 **SOUTH CAROLINA (“COMMISSION”)?**

12 **A.** No, I have not previously testified before this Commission.

13 **Q. WHAT IS THE MISSION OF THE OFFICE OF REGULATORY STAFF?**

14 **A.** ORS represents the public interest as defined by the South Carolina General
15 Assembly as follows:

16 [T]he concerns of the using and consuming public with respect to public utility
17 services, regardless of the class of customer, and preservation of continued
18 investment in and maintenance of utility facilities so as to provide reliable and high-
19 quality utility services.

20 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?**

21 **A.** The purpose of my testimony is to set forth the ORS’s recommendations as they
22 relate to my review of the rate increase application (“Application”) submitted by Blue
23 Granite Water Company (“BGWC” or “Company”). Specifically, I will focus on the
24 following areas:

- 25
- ORS’s adjustment to purchased water expense;

- ORS's adjustment to deferred purchased water expense;
- ORS's adjustment to BGWC Project Number 2018173: BGWC Office Capital Upgrades ("BGWC Office Upgrades"); and
- ORS's recommendation regarding the Equalization ("EQ") Basin portion of the BGWC Project Number 2018029: Friarsgate Interconnection/Lift Stations ("Friarsgate Interconnection Project").

Q. ARE THE FINDINGS OF YOUR REVIEW CONTAINED IN THIS TESTIMONY AND ACCOMPANYING EXHIBITS?

A. Yes. My testimony and the attached exhibits detail ORS's findings and recommendations.

Q. WAS THE REVIEW PERFORMED BY YOU OR UNDER YOUR SUPERVISION?

A. Yes. The review to which I testify was performed by me or under my supervision.

Q. PLEASE EXPLAIN HOW YOU COMPILED INFORMATION FOR YOUR TESTIMONY AND EXHIBITS.

A. I used information provided by the Company in its Application, additional information provided by the Company during ORS's review and subsequent discovery, and information gathered by ORS during facility site inspections.

Adjustments for Non-Revenue Water

Q. PLEASE EXPLAIN ORS'S ADJUSTMENT TO PURCHASED WATER EXPENSE.

A. ORS recommends an adjustment of \$271,930 to reduce the Purchased Water expenses for Service Territories 1 and 2 to limit the customer's responsibility for non-revenue water expense to 10% in each subdivision. This adjustment is reflected in ORS Adjustment 8b. The Company previously illustrated the various components of non-

revenue water.¹ The Company calculated non-revenue water for subdivisions served by a third-party water provider and the cost associated with non-revenue water greater than 10% for a given subdivision for the twelve (12) months ending November 30, 2019.² Following a review of the data provided by the Company, ORS determined the following subdivisions experienced greater than 10% non-revenue water during the twelve (12) months ending November 30, 2019:

Table 1: Subdivisions with Non-Revenue Water > 10%

Subdivision	Non-Revenue Water
Hill and Dale	52.9%
Peachtree Acres	48.8%
Hidden Lakes	35.8%
Leon Bolt	35.3%
Westside Terrace	29.8%
Washington Heights	23.2%
Charleswood	21.5%
Stonegate (North Pines)	20.8%
I-20	20.2%
Hidden Lake	18.2%
Watergate/Spence Point/Mallard Shores	16.6%
Country Oaks	15.1%
River Hills	14.1%
Calhoun Acres	13.9%
Dutchman Shores	12.8%
Windward Point-Harbour Place	12.8%
Foxwood	12.5%
Clearview	12.1%
Farrowood	11.4%
Rollingwood	11.4%
Dutch Village/Dutch Creek	11.3%

¹ Direct Testimony of Bryce Mendenhall, Page 16, lines 12-13

² Response to Energy Operations Request (“EOR”) #27, Question 1

1 The Company experienced a large increase to the number of subdivisions with more
2 than 10% non-revenue water since its last rate case. In Docket No. 2017-292-WS, there
3 were three (3) subdivisions with more than 10% non-revenue water based on the data
4 provided by the Company; whereas, data provided by the Company for this rate case shows
5 twenty-one (21) subdivisions with more than 10% non-revenue water as shown in the
6 above table.

7 ORS's recommendation to limit recovery of purchased water expenses in each
8 subdivision to 10% non-revenue water insulates the ratepayer from non-revenue water
9 impacts and incentivizes the Company to monitor and mitigate non-revenue water. This
10 adjustment is consistent with the non-revenue water adjustment recommended by ORS and
11 not disputed by the Company in Docket No. 2017-292-WS and subsequently accepted by
12 the Commission in Order No. 2018-345(A). This is also consistent with American Water
13 Works Association's benchmark for non-revenue water.³

14 **Q. PLEASE EXPLAIN ORS'S ADJUSTMENT TO THE PURCHASED WATER**
15 **DEFERRAL ACCOUNT.**

16 **A.** ORS recommends an adjustment of \$50,929 to reduce the Purchased Water
17 Deferral Account for Service Territories 1 and 2 to limit the customer's responsibility for
18 non-revenue water expense to 10% in each subdivision. The ORS adjustment is reflected
19 in ORS Adjustment 8a. ORS used the data provided by the Company in EOR #27 to
20 calculate the aggregate non-revenue water across all subdivisions served by a third-party
21 water provider, which resulted in an aggregate calculation of 15.38% non-revenue water
22 across all subdivisions.

³ Committee, A.L.D.a.W.A. (1996), Committee report: water accountability. Journal - American Water Works Association, 88: 108-111. doi:10.1002/j.1551-8833.1996.tb06590.x

Q. WHY DID ORS USE AN AGGREGATE VALUE FOR NON-REVENUE WATER ACROSS ALL SUBDIVISIONS TO CALCULATE THE ADJUSTMENT FOR THE DEFERRAL ACCOUNT?

A. The purchased water deferral account is a relatively complex accrual of increased third-party wholesale rates. An aggregate calculation for non-revenue water is reasonable and conservative because it includes ten (10) subdivisions that realized water gain during the twelve (12) months ending November 30, 2019 (i.e., Company records indicate that the Company sold more water to customers than the Company purchased from the third-party water provider). The phenomena that produced the water gain in ten (10) subdivisions highlights a flaw in the Company's data management, such as metering accuracy, and subsequent water balance calculations. Thus, ORS's conservative aggregate non-revenue water percentage is lower than the aggregate when using only those subdivisions that realized non-revenue water over the same period.

Q. PLEASE EXPLAIN WHY ORS USED THE TWELVE (12) MONTHS ENDING NOVEMBER 30, 2019, AND NOT THE TEST YEAR ENDING JUNE 30, 2019.

A. Given the availability of more recent third-party wholesale provider purchases and customer consumption data, and to recognize system improvements made by the Company from the end of the Test Year through November 30, 2019, ORS determined purchased water and consumption data from the twelve (12) months ending November 30, 2019 is a reasonable and more accurate reflection of the Company's operating experience moving forward.

Q. DOES ORS HAVE ANY RECOMMENDATIONS FOR BGWC TO MONITOR AND MITIGATE NON-REVENUE WATER IN THE FUTURE?

1 A. Yes. The high number of subdivisions that experienced greater than 10% non-
2 revenue water during the twelve (12) months ending November 30, 2019 is concerning and
3 the Company should prioritize the reduction of non-revenue water. The Company has
4 taken some steps to attempt to mitigate non-revenue water since the last rate case, such as
5 the Lake Wylie Water Meter Replacement Program. However, this effort only impacts one
6 subdivision and does not address real losses, such as potential leaks, within the Company-
7 owned distribution system.

8 ORS recommends that the Company expand its efforts to monitor and mitigate non-
9 revenue water across all service territories, particularly those that are served by a third-
10 party provider where there are relatively higher monetary costs associated with non-
11 revenue water.

12 ORS also recommends that BGWC have annual water audits performed by an
13 independent third-party vendor to evaluate non-revenue water within its water systems and
14 provide mitigation recommendations to the Company. This continual auditing program
15 would allow the Company to better track non-revenue water, correct data management
16 errors, and more accurately quantify how infrastructure improvement projects are affecting
17 non-revenue water. ORS recommends the Company file its annual water audit performed
18 by an independent third-party with the ORS and the Commission.

19 **Adjustment to Office Upgrades**

20 **Q. PLEASE EXPLAIN ORS'S ADJUSTMENT TO THE BGWC OFFICE UPGRADES.**

21 A. ORS recommends an adjustment of \$495,206 to eliminate cost recovery for the
22 BGWC Office Upgrades. The ORS adjustment is reflected in ORS Adjustment 32.

Q. WHAT IS ORS'S REASON FOR THE ADJUSTMENT TO ELIMINATE THE BGWC OFFICE UPGRADES?

A. ORS recommendation reflects ORS's position that the Company's decision to relocate its West Columbia, SC office to Greenville, SC was unreasonable and the cost of upfitting the leased space in Greenville should not be the responsibility of the customers.

Q. WHAT JUSTIFICATION DID THE COMPANY PROVIDE AS TO WHY IT CHOSE TO RELOCATE OFFICES TO GREENVILLE?

A. The Company's justification for relocating was as follows:

"The primary focus of the office relocation was to attract and retain the professionals needed to maintain and improve the Company's ability to provide utility service at reasonable cost. The Company and the industry as a whole has an aging workforce, and the eligible workforce is shrinking, so ensuring that the right professionals are being attracted to the Company and retained by the Company is fundamental to the Company's ability to continue providing quality and cost-effective service. The Company looked at Greenville and Columbia/West Columbia as location options. We used CBRE data (attached) to compare labor statistics of Columbia versus Greenville and decided upon Greenville. The Greenville office is within walking distance of our outside engineers (GMC) and peer utilities, Pacolet Milliken and Duke Energy, and offers additional conveniences to current and potential employees. The Columbia area did not have these same benefits. Customers benefit from the acquisition and retention of talented employees for the Company, which can minimize turnover costs and institutional knowledge loss over time. Please see attached file "Office Expenses" for the Columbia office costs offset by rent expense for the Greenville office."⁴

Q. THE COMPANY STATED THAT IT USED CBRE DATA TO COMPARE LABOR STATISTICS BETWEEN COLUMBIA, GREENVILLE, AND WEST COLUMBIA. CAN YOU DESCRIBE THE CBRE DATA?

A. The Company submitted copies of the CBRE "Profiles" for the three (3) locations.⁵ Copies of the CBRE Profiles for each location are attached as Exhibit KDM-1. Upon

⁴ Response to EOR #14, Question 1

⁵ Response to EOR #14, Question 1

review of the data, it appears that CBRE looked at several market metrics within a specified distance (radius) from a given location to create labor supply and labor cost indices. ORS points to the following statements from the CBRE Profiles as further explanation:

“A profile is the combination of data points and their assigned weighting scheme that represents a given set of criteria for one of multiple skill sets. This profile is based on a basic set of criteria that can be further customized upon request.”

and

“Index scores are calculated so that they are relative to the national average. With national indices having a value of 100, all scores above 100 indicate a positive attribute, while scores below 100 indicate a negative attribute. **Cost scores are inverted so that a score above 100 indicates a lower cost market than the national average.**” [no emphasis added]

The overall score for a given location is defined by its “Total Index Score.” The Total Index Scores for each location were as follows:

- Greenville – 105
- Columbia – 103
- West Columbia – 101

Q. DOES ORS BELIEVE THE CBRE PROFILES PROVIDED BY THE COMPANY RESULT FROM AN EQUITABLE COMPARISON BETWEEN EACH LOCATION?

A. No. The Company used a 20-mile radius to evaluate market metrics for Columbia and Greenville, whereas the Company used a 10-mile radius for West Columbia.

Q. HOW WOULD THE USE OF A 20-MILE RADIUS FOR WEST COLUMBIA OR A 10-MILE RADIUS FOR COLUMBIA AND GREENVILLE IMPACT TOTAL INDEX SCORES?

A. It is unclear how this would impact the Total Index Scores. ORS asked the Company to provide a 20-mile profile for West Columbia and 10-mile profiles for Columbia and Greenville, but the Company stated that it no longer had access to the CBRE database and were not able to produce such profiles at the different radii.⁶ ORS notes that the smaller 10-mile radius for West Columbia excludes municipalities such as Blythewood, Chapin, and portions of Lexington, among others; municipalities that would have been included if using a 20-mile radius.

Q. DOES ORS BELIEVE THAT THE DIFFERENCE IN THE TOTAL INDEX SCORES MERITS THAT CUSTOMERS SHOULD PAY THE COST TO RELOCATE TO AND UPFIT THE COMPANY'S NEW OFFICE?

A. No. The Company stated the following when asked if a two-point difference in the Total Index Score represented a material difference between the two regions:

“Looking specifically at the reports supplied in response to Energy Operations Request #14, the Market Index values support a notably stronger workforce availability, quality, and supply for Greenville. While the Skill Set value is lower, this simply means the workers in Greenville may have generally less experience, this means there is less potential for an aging workforce and more opportunity to add new talent who can shape the culture of the Company going forward. These Market Index values also result in the Optimal Balance value placement in the Optimal Quadrant, with Columbia outside this quadrant.”⁷

ORS contends this is a subjective argument and that the 2- to 4-point difference in Total Index Scores does not justify the high cost to relocate to and upfit the Company's new office be paid by BGWC customers.

Q. DO CUSTOMERS HAVE BETTER ACCESS TO THE COMPANY'S ADMINISTRATIVE OFFICE FOLLOWING THE RELOCATION?

⁶ Response to EOR #25, Question 1

⁷ Response to EOR #25, Question 1

A. No. A significant portion of the Company's customers live in central South Carolina, near where the Company's headquarters used to be located, and north-central South Carolina, whereas a relatively small number of customers live in or around Greenville. For example, 11,971 (or 43.0%) of the Company's customers live in Lexington County and 10,750 (or 38.6%) of the Company's customers live in York County, whereas only 723 (or 2.6%) of the Company's customers live in Greenville County.⁸ A map depicting customer counts by county is attached as Exhibit KDM-2.

Q. WHAT OTHER LOCATIONS OF THE STATE DID THE COMPANY COMPARE?

A. The Company did not compare labor statistics of any other locations in the state. The Company did not consider Rock Hill, SC or York County for the office relocation, which would have been reasonable because these locations are near a significant percentage of the Company's customers and an affiliate company has an existing office in nearby Charlotte, North Carolina.

Q. IS THE COMPANY ABLE TO MAKE DECISIONS RELATED TO OFFICE SPACE AND LOCATION WITHOUT COMMISSION APPROVAL?

A. Yes. However, ORS recommends any costs associated with office relocation and office rent be thoroughly reviewed for cost recovery to ensure the Company took steps to minimize cost and that the location of the office and the decision to lease or purchase the office space is in the best interest of customers.

Q. WERE THERE COST SAVINGS THAT RESULTED FROM THE RELOCATION TO GREENVILLE?

⁸ Response to EOR #25, Question 2

1 A. No. The Company did not identify any cost savings associated with the relocation
2 that would result in material and quantifiable overall benefits to the customers. The
3 Company attached a list of costs that would be “offset” by the rent expense for Greenville.⁹
4 This comparison showed that the Company would save \$27,260 by removing costs such
5 as water, sewer, electric, gas, landscaping, and property taxes, among other things.
6 However, the Company stated that the annual rent for the Greenville office would be
7 \$84,685 compared to the annual costs of \$27,260.

8 **Q. SHOULD THE COMPANY HAVE MINIMIZED THE COSTS ASSOCIATED**
9 **WITH THE OFFICE RELOCATION AND LEASED SPACE UPFIT?**

10 A. Yes. The Company failed to minimize the costs associated with the office
11 relocation and upfit. The Company’s office space contains many amenities for employees
12 such as the premium location in a historic building, luxury office finishes and
13 appointments, high-end office furniture, large communal spaces, and an overall large
14 footprint relative to the small number of employees. It is difficult to explain to customers
15 that struggle to pay their water and sewer bills why the Company should be allowed to pass
16 the expense of the office relocation and upfit to customers through higher rates.

17 **Q. ARE THE BGWC OFFICE UPGRADES IN THE BEST INTEREST OF**
18 **CUSTOMERS?**

19 A. No. The Company did not provide reasonable justification to merit the large one-
20 time expense of the BGWC Office Upgrades and the relocation and upfit did not result in
21 material cost savings to benefit customers.

⁹ Response to EOR #14, Question 1

Q. DOES ORS MAKE A CORRESPONDING ADJUSTMENT TO LIMIT RECOVERY OF THE OFFICE LEASE EXPENSE?

A. No. ORS did not limit the recovery of lease expenses for this office outside of ORS Adjustment 18 as described by ORS witness Sullivan.

Friarsgate Interconnection Project

Q. DID ORS VISIT THE FRIARSGATE INTERCONNECTION PROJECT DURING ITS REVIEW?

A. Yes. ORS conducted a site visit to review the status of the Friarsgate Interconnection Project on January 7, 2020.

Q. WHAT WAS THE CONDITION OF THE EQ BASIN AT THE TIME OF ORS'S SITE VISIT?

A. ORS witnessed a "whaling" of the EQ liner during the site visit. Whaling occurs when gases build up and become trapped underneath the EQ liner. The gases concentrate in a localized area and create a "bubble" that elevates a portion of the liner above water surface within the basin.

Q. WILL ADDITIONAL WORK NEED TO BE PERFORMED ON THE EQ BASIN TO FIX THESE OPERATIONAL ISSUES?

A. Yes. The Company is addressing a warranty issue with the contractor and engineer from the project relating to the whaling of the EQ liner.¹⁰

Q. WHAT ARE ORS'S RECOMMENDATION REGARDING THE EQ BASIN REHABILITATION?

¹⁰ Response to EOR #37, Question 6

1 **A.** ORS recommends the customers should not be responsible for any costs associated
2 with repairing the current whaling of the EQ basin.

3 **Q. WILL YOU UPDATE YOUR TESTIMONY BASED ON INFORMATION THAT**
4 **BECOMES AVAILABLE?**

5 **A.** Yes. ORS reserves the right to revise its recommendations via supplemental
6 testimony should new information not previously provided by the Company, or other
7 sources become available.

8 **Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

9 **A.** Yes, it does.

GREENVILLE, SC

PROFILE: GEOSKILL - BACK OFFICE

20.0 Mile Radius

105
TOTAL INDEX

Prepared for: Utilities, Inc

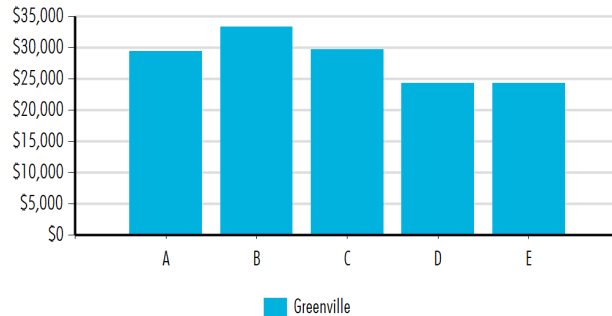
Prepared by: Chad Barbiasz



DEMOGRAPHICS

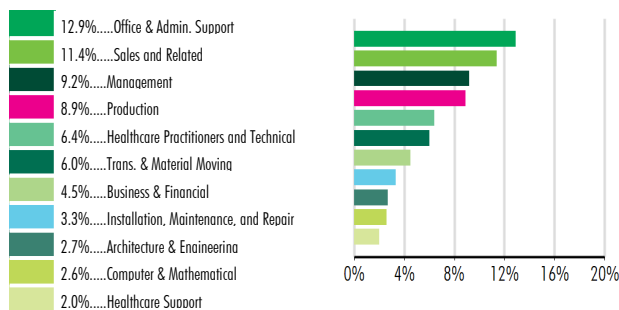
Key Metrics	Market	National
Population (vs. nat'l metro avg)	711,969	735,789
Labor Force (vs. nat'l metro avg)	355,749	372,838
Proj. Pop Growth	7.0%	4.2%
Unemployment (Monthly)	4.3%	4.4%
Median Household Income - USD	\$51,993	\$56,124
Proj. Income Growth	12.2%	10.6%
Cost of Living	93.6%	100.0%
% Population 21-34 (Millennials)	18.1%	19.3%
Median Home Value	\$ 161,209	\$ 207,344

MEDIAN WAGES BY MARKET (USD)



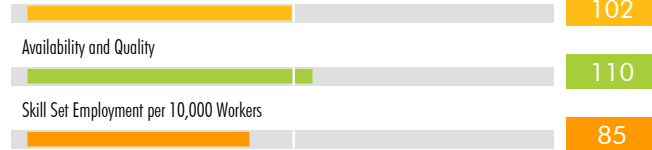
Job Title – Year of Experience	Market	National
A Accounts Payable and Receivable Clerk - 1 Year	\$29,363	\$32,233
B Administrative Assistant - 1 Year	\$33,291	\$36,319
C Bookkeeping Clerk - 1 Year	\$29,645	\$32,512
D Data Entry Operator - 1 Year	\$24,311	\$27,190
E File Clerk - 1 Year	\$24,325	\$27,027

EMPLOYMENT BY OCCUPATION

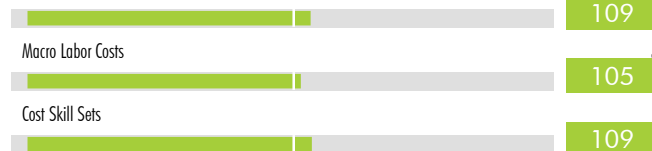


MARKET INDEXES

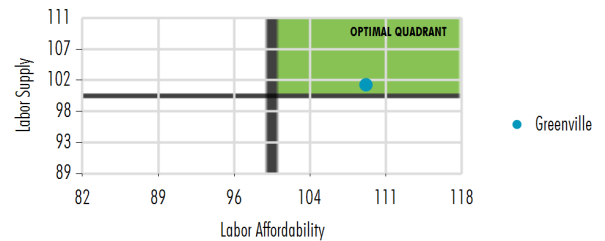
Labor Supply



Labor Cost



OPTIMAL BALANCE

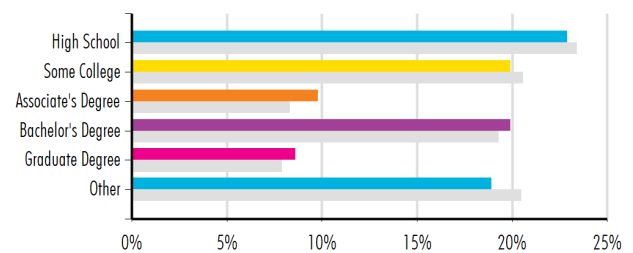


POST SECONDARY SCHOOLS

Post Secondary Schools	Type	Enrollment
Clemson Univ.	4-Year Public University	21,857
Greenville Technical Col.	2-Year Community College	12,592
Tri-County Technical Col.	2-Year Community College	6,386
Anderson Univ.	4-Year Private University	3,112
Bob Jones Univ.	4-Year Private University	3,108

2-Yr Colleges:	7	2-Yr Enrollment:	19,811	Total # of Colleges:	17
4-Yr Colleges:	10	4-Yr Enrollment:	39,825	Total Enrollment:	59,636

EDUCATIONAL ATTAINMENT



* National Average denoted in Gray

METHODOLOGY

Know your Score

GeoSkill makes it easy to score a market based on several dozen variables benchmarked against the national average. This enables quick assessment of labor market strengths and weaknesses.

Profile ***

A profile is the combination of data points and their assigned weighting scheme that represents a given set of criteria for one or multiple skill sets. This profile is based on a basic set of criteria that can be further customized upon request.

Market Index ***

Index scores are calculated so that they are relative to the national average. With national indices having a value of 100, all scores above 100 indicate a positive attribute, while scores below 100 indicate a negative attribute. **Cost scores are inverted so that a score above 100 indicates a lower cost market than the national average.**

- A supply score of 105 indicates the value is 5% **greater than the national average**
- A cost score of 105 indicates the value is 5% **less than the national average**

Sources ***
















Demographics: ESRI (annual); Wages & Cost of Living: Economic Research Institute (bi-annual); Education Institutions: IPEDS (annual); Occupation Data: Bureau of Labor Statistics (annual); Quality of Life: EASI Analytics (annual); Market Activity and Competition: CBRE Labor Analytics Proprietary Research (ongoing)

COMPETITIVE INTELLIGENCE, CUSTOMIZATION & LOCATION STRATEGY

Did you know talent considerations drive more than 83% of location strategy decisions? Workforce demand is at all time highs and identifying the right location for a sustainable competitive advantage is paramount. Labor statistics only show a part of the talent and location strategy picture. Successful location decisions also include:

- ✓ Workforce longevity & scalability
- ✓ Customized skill set profiling
- ✓ Primary labor market research
- ✓ Competitive research
- ✓ Talent mapping

Index Value and Color Key ***

COLOR	INDEX SCORE	INDICATION
NATIONAL AVERAGE: 100		
 DARK GREEN	115+	Highly positive and desirable attribute: Scores very well in comparison to the national average. Supply is well above national average; Cost is well below national average.
	 SUPPLY  COST	
 LIGHT GREEN	105-114	Positive and desirable attribute: Scores well in comparison to the national average. Supply is above national average; Cost is below national average.
	 SUPPLY  COST	
 YELLOW	95-104	Neutral attribute: Scores close to the national average. Supply and Cost are close to the national average.
	 SUPPLY  COST	
 ORANGE	85-94	Negative attribute: Scores below the national average. Supply is below the national average; Cost is above the national average.
	 SUPPLY  COST	
 RED	84 AND BELOW	Highly negative attribute: Scores well below the national average. Supply is well below the national average; Cost is well above the national average.
	 SUPPLY  COST	

CBRE's Labor Analytics has delivered labor and location strategies for its clients for over 20 years. For a deeper or more customized analysis or site selection strategy, call us. We can help.

HOW DOES THIS MARKET FIT MY SPECIFIC NEEDS?	HOW SUSTAINABLE OR SCALABLE IS THIS MARKET?	WHAT ARE THE BEST LOCATIONS FOR OUR BUSINESS?	HOW DO I CREATE A ROADMAP FOR MY PORTFOLIO?
For information on this report or for additional needs, please contact CBRE Labor Analytics:	Mark Seeley Senior Vice President +1 602 735 5230 mark.seeley@cbre.com	Kristin Sexton Senior Managing Director +1 602 735 5247 kristin.sexton@cbre.com	Laura Sidney Senior Director, Client Strategy +1 602 735 5564 laura.sidney@cbre.com

COLUMBIA, SC

PROFILE: GEOSKILL - BACK OFFICE

20.0 Mile Radius

103

TOTAL INDEX

Prepared for: Utilities, Inc

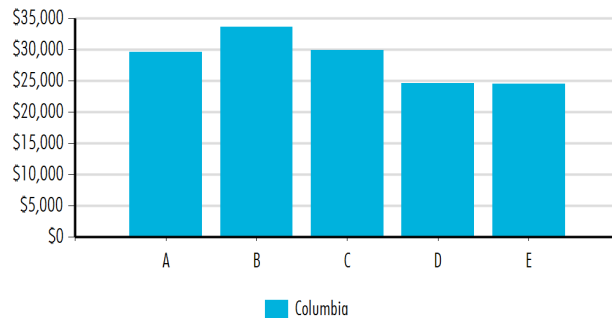
Prepared by: Chad Barbiasz



DEMOGRAPHICS

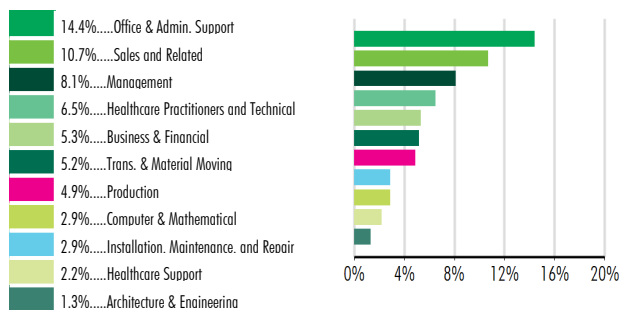
Key Metrics	Market	National
Population (vs. nat'l metro avg)	519,482	735,789
Labor Force (vs. nat'l metro avg)	263,781	372,838
Proj. Pop Growth	5.1%	4.2%
Unemployment (Monthly)	4.0%	4.4%
Median Household Income - USD	\$50,213	\$56,124
Proj. Income Growth	11.1%	10.6%
Cost of Living	95.1%	100.0%
% Population 21-34 (Millennials)	22.8%	19.3%
Median Home Value	\$ 152,831	\$ 207,344

MEDIAN WAGES BY MARKET (USD)



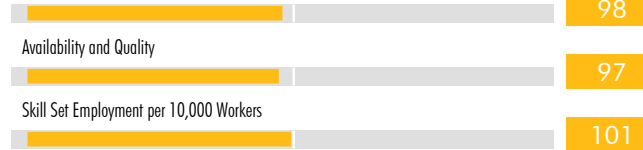
Job Title – Year of Experience	Market	National
A Accounts Payable and Receivable Clerk - 1 Year	\$29,556	\$32,233
B Administrative Assistant - 1 Year	\$33,545	\$36,319
C Bookkeeping Clerk - 1 Year	\$29,839	\$32,512
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E File Clerk - 1 Year	\$24,528	\$27,027

EMPLOYMENT BY OCCUPATION

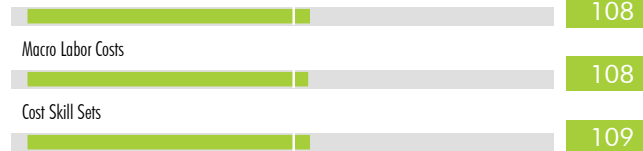


MARKET INDEXES

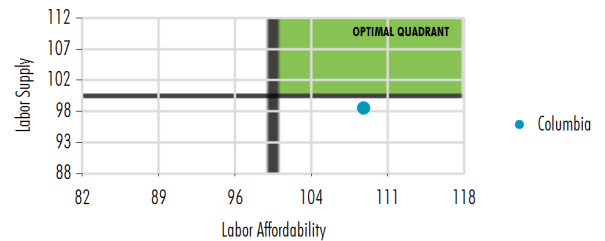
Labor Supply



Labor Cost



OPTIMAL BALANCE

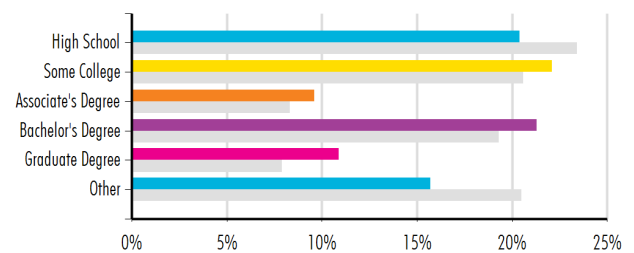


POST SECONDARY SCHOOLS

Post Secondary Schools	Type	Enrollment
Univ. of South Carolina-Colum...	4-Year Public University	32,971
Midlands Technical Col.	2-Year Community College	11,424
Benedict Col.	4-Year Private University	2,444
South Univ.-Columbia	4-Year Private University	1,464
Columbia Col.	4-Year Private University	1,221

2-Yr Colleges:	11	2-Yr Enrollment:	13,007	Total # of Colleges:	22
4-Yr Colleges:	11	4-Yr Enrollment:	41,428	Total Enrollment:	54,435

EDUCATIONAL ATTAINMENT



* National Average denoted in Gray

METHODOLOGY

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GeoSkill makes it easy to score a market based on several dozen variables benchmarked against the national average. This enables quick assessment of labor market strengths and weaknesses.

Profile ***

A profile is the combination of data points and their assigned weighting scheme that represents a given set of criteria for one or multiple skill sets. This profile is based on a basic set of criteria that can be further customized upon request.

Market Index ***

Index scores are calculated so that they are relative to the national average. With national indices having a value of 100, all scores above 100 indicate a positive attribute, while scores below 100 indicate a negative attribute. **Cost scores are inverted so that a score above 100 indicates a lower cost market than the national average.**

- A supply score of 105 indicates the value is 5% **greater than the national average**
- A cost score of 105 indicates the value is 5% **less than the national average**

Sources ***
















Demographics: ESRI (annual); Wages & Cost of Living: Economic Research Institute (bi-annual); Education Institutions: IPEDS (annual); Occupation Data: Bureau of Labor Statistics (annual); Quality of Life: EASI Analytics (annual); Market Activity and Competition: CBRE Labor Analytics Proprietary Research (ongoing)

COMPETITIVE INTELLIGENCE, CUSTOMIZATION & LOCATION STRATEGY

Did you know talent considerations drive more than 83% of location strategy decisions? Workforce demand is at all time highs and identifying the right location for a sustainable competitive advantage is paramount. Labor statistics only show a part of the talent and location strategy picture. Successful location decisions also include:

- ✓ Workforce longevity & scalability
- ✓ Customized skill set profiling
- ✓ Primary labor market research
- ✓ Competitive research
- ✓ Talent mapping

Index Value and Color Key ***

COLOR	INDEX SCORE	INDICATION
NATIONAL AVERAGE: 100		
 DARK GREEN	115+	Highly positive and desirable attribute: Scores very well in comparison to the national average. Supply is well above national average; Cost is well below national average.
	<div>  SUPPLY  COST </div>	
 LIGHT GREEN	105-114	Positive and desirable attribute: Scores well in comparison to the national average. Supply is above national average; Cost is below national average.
	<div>  SUPPLY  COST </div>	
 YELLOW	95-104	Neutral attribute: Scores close to the national average. Supply and Cost are close to the national average.
	<div>  SUPPLY  COST </div>	
 ORANGE	85-94	Negative attribute: Scores below the national average. Supply is below the national average; Cost is above the national average.
	<div>  SUPPLY  COST </div>	
 RED	84 AND BELOW	Highly negative attribute: Scores well below the national average. Supply is well below the national average; Cost is well above the national average.
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CBRE's Labor Analytics has delivered labor and location strategies for its clients for over 20 years. For a deeper or more customized analysis or site selection strategy, call us. We can help.

HOW DOES THIS MARKET FIT MY SPECIFIC NEEDS?	HOW SUSTAINABLE OR SCALABLE IS THIS MARKET?	WHAT ARE THE BEST LOCATIONS FOR OUR BUSINESS?	HOW DO I CREATE A ROADMAP FOR MY PORTFOLIO?
For information on this report or for additional needs, please contact CBRE Labor Analytics:	Mark Seeley Senior Vice President +1 602 735 5230 mark.seeley@cbre.com	Kristin Sexton Senior Managing Director +1 602 735 5247 kristin.sexton@cbre.com	Laura Sidney Senior Director, Client Strategy +1 602 735 5564 laura.sidney@cbre.com

WEST COLUMBIA, SC

PROFILE: GEOSKILL - BACK OFFICE
10.0 Mile Radius

101
TOTAL INDEX

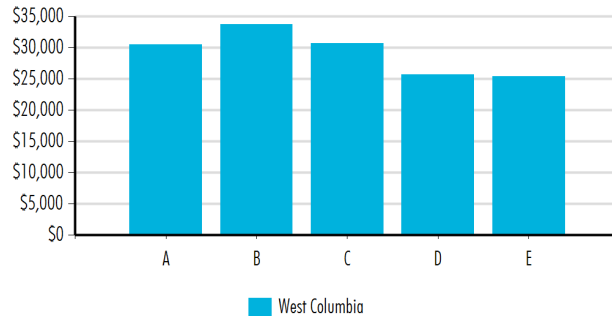
Prepared for: Utilities, Inc
Prepared by: Chad Barbiasz



DEMOGRAPHICS

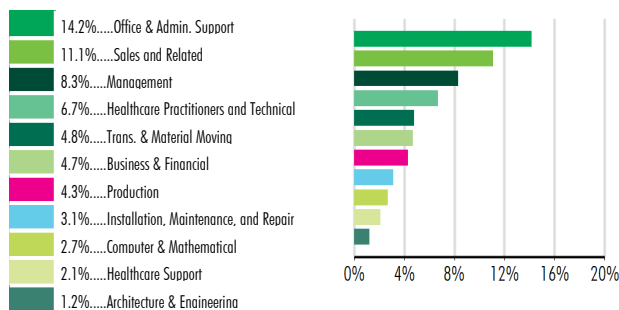
Key Metrics	Market	National
Population (vs. nat'l metro avg)	384,146	735,789
Labor Force (vs. nat'l metro avg)	196,189	372,838
Proj. Pop Growth	5.1%	4.2%
Unemployment (Monthly)	3.4%	3.9%
Median Household Income - USD	\$46,820	\$56,124
Proj. Income Growth	13.2%	10.6%
Cost of Living	97.7%	100.0%
% Population 21-34 (Millennials)	24.3%	19.3%
Median Home Value	\$ 146,649	\$ 207,344

MEDIAN WAGES BY MARKET (USD)

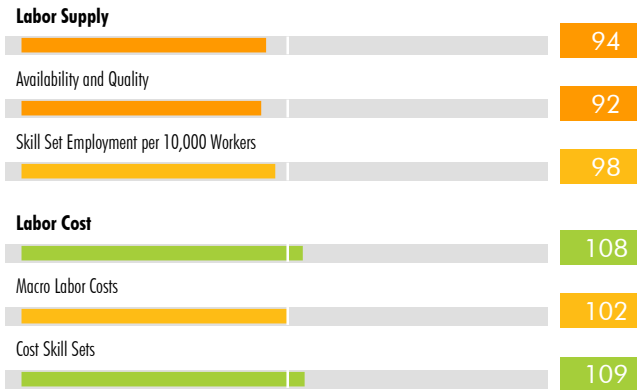


Job Title – Year of Experience	Market	National
A Accounts Payable and Receivable Clerk - 1 Year	\$30,420	\$33,250
B Administrative Assistant - 1 Year	\$33,700	\$36,721
C Bookkeeping Clerk - 1 Year	\$30,706	\$33,537
D Data Entry Operator - 1 Year	\$25,677	\$28,446
E File Clerk - 1 Year	\$25,393	\$27,970

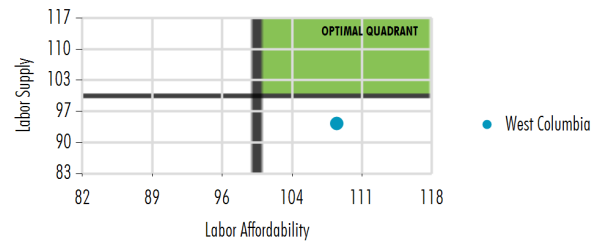
EMPLOYMENT BY OCCUPATION



MARKET INDEXES



OPTIMAL BALANCE

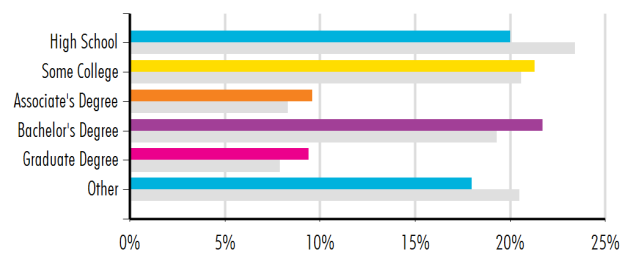


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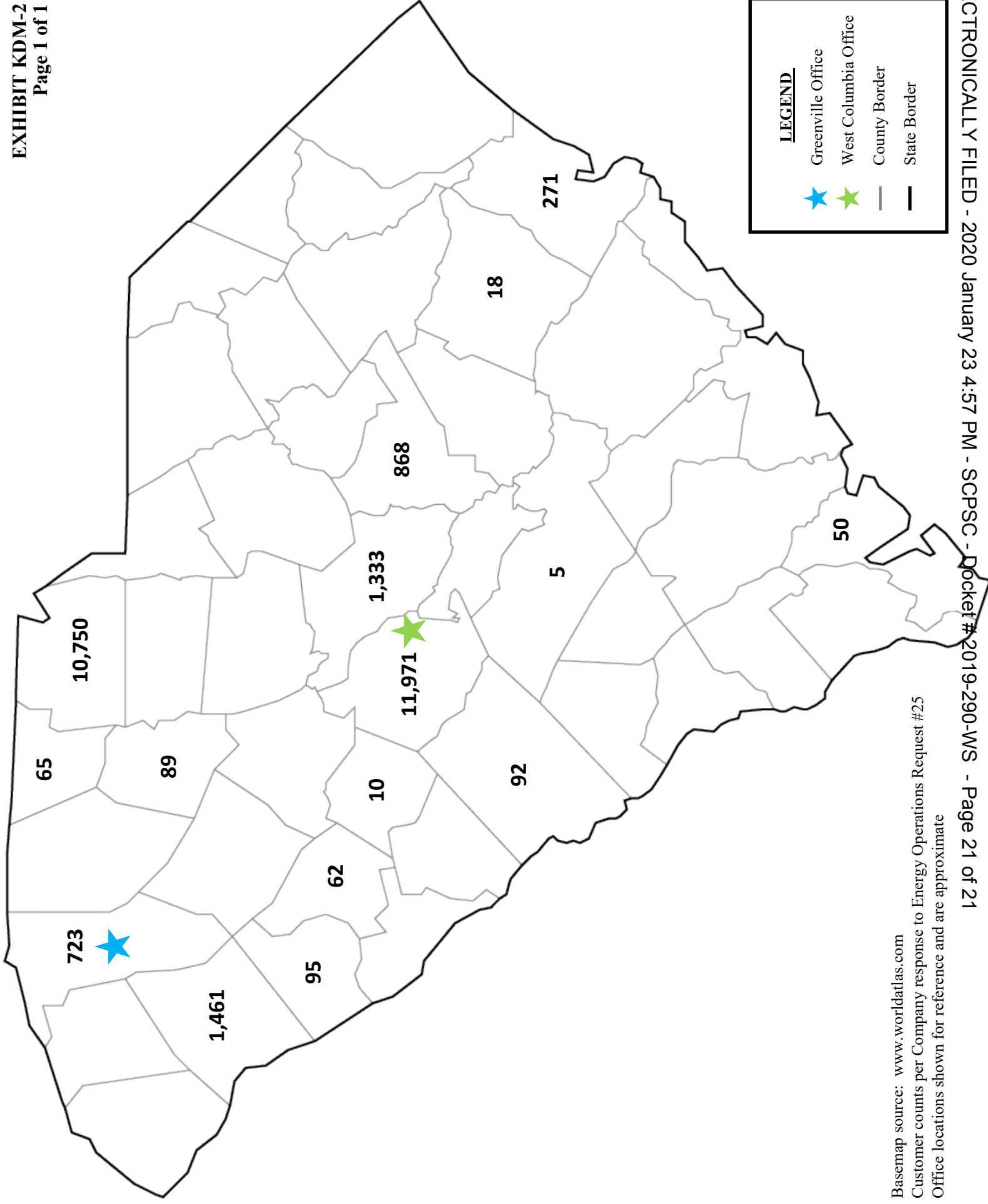
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Basemap source: www.worldatlas.com
Customer counts per Company response to Energy Operations Request #25
Office locations shown for reference and are approximate